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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/778,378 | 02/07/2001 | Debra L. Biebesheimer | 14069(YOR920000766US1) | 6851 |

7590 02/27/2003
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EXAMINER

WOO, ISAAC M

ART UNIT PAPER NUMBER

2172

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,378

Applicant(s)

BIEBESHEIMER ET AL.

Examiner

Isaac M Woo

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chundi et al (U.S. Patent No. 6,502,091, hereinafter, "Chundi").

With respect to claims 1, 10 and 19, Chundi discloses the system, method and program storage device readable by machine embodying a program of instructions executable by machine to perform for classifying user contexts (context clustering) in a customer self service system that performs resource search and selection, the customer self service system including a context attribute database (36, FIG. 1) comprising types of user contexts and one or more context attributes (usage categories) associated with each user context for processing by the system, and context attribute function database comprising functions for computing values for each context attribute, see (col. 1, lines 6-67 to col. 2, lines 1-67 to col. 3, lines 1-6),

a) receiving a user query (col. 2, lines 31-49, col. 5, lines 5-16) and context vector (FIG. 4, FIG. 5, FIG. 6, col. 7, lines 1-27) comprising data associating an interaction state with the user (38, usage logs, FIG. 1, col. 1, lines 6-67 to col. 2, lines 1-67 to col. 3, lines 1-6);

b) processing the query and context vector (FIG. 4, FIG. 5, FIG. 6, col. 7, lines 1-27) against data included in a context attribute database (36, FIG. 1) comprising types of user contexts and one or more context attributes (usage categories) associated with each user context for processing by the system, see (FIG. 1, FIG. 2, FIG. 3, FIG. 4, FIG. 5, FIG. 6, col. 5, lines 17-67 to col. 6, lines 1-67 to col. 7, lines 1-36, col. 2, lines 4-67 to col. 1-6, col. 4, lines 40-67 to col. 5, lines 1-45); and

c) processing the query and context vector against data included in a context attribute function database (FIG. 4, FIG. 5, FIG. 6, col. 7, lines 1-27) comprising functions for computing values for each context attribute (col. 5, lines 5-67 to col. 6, lines 1-67 to col. 1-36), wherein the processing steps b) and c) results in predicting a particular user context and populating the user context vector with context parameters specifying (col. 5, lines 5-67 to col. 6, lines 1-67 to col. 1-36), a user interaction state (usage logs, col. 2, lines 27-61). Chundi does not explicitly disclose for use in a subsequent resource search. However, Chundi discloses that user may submit multiple queries in an attempt to solve the same problem. Subsequent queries may be refinements of the initial query. It is currently assumed that each query is a separate session. This technique can be extended to the case where each retrieval session includes multiple queries, or a user problem rather than a single query, see (col. 5, lines

38-44), which teaches that the user contexts are used for later queries again and Chundi teaches discovering context for increasing high probability for searching, see (col. 1, lines 5-67 to col. 2, lines 1-25). Therefore, it would have been obvious a person having ordinary skill in the art the time invention made to include a subsequent resource search in the system of Chundi with using and analyzing query logs for subsequent search purposes. In order to achieve high retrieval effectiveness, grouping (classifying) the user contexts (groups of related words and meaning) by analyzing the user's query logs is used. And the grouping the user contexts gives the user high precision search results (subsequent resource search).

With respect to claims 2, 11 and 20, Chundi discloses that applying the functions to context for specifying the user interaction state, the populating step including annotating the context vector with a set of context parameters for use in subsequent processing, see (FIG. 2-6, col. 7, lines 1-27).

With respect to claims 3, 12 and 21, Chundi discloses that implementing an inductive learning algorithm for predicting the user contexts, see (FIG. 2-6, col. 7, lines 1-27).

With respect to claims 4, 13 and 22, Chundi discloses that updating the attribute value functions database with more enhanced functions, see (FIG. 1, col. 3, lines 61-67 to col. 4, lines 1-67 to col. 5, lines 1-5).

With respect to claims 5, 14 and 23, Chundi discloses that analyzing historical user interaction data from a user interaction database (usage logs, FIG. 1) comprising data relating to past user queries entered into the system and associated user contexts for particular users; and, mapping context attribute values to context attribute functions, said data from said user records database serving as a training set for continuous improvement of said functions in the attribute function database, see (col. 2, lines 31-67 to col. 2, lines 1-6).

With respect to claims 6, 15 and 24, Chundi discloses that the user interaction data includes data relating to previous system interactions, the data including user validated contexts that were applicable during said the system interactions, and the users responses relating to those interactions, see (FIG. 1, FIG. 2-4, col. 2, lines 31-67 to col. 2, lines 1-6, col. 5, lines 5-45).

With respect to claims 7 and 16, Chundi discloses that the prior transactions of a current user and prior transactions of other similar users, wherein common behaviors and acceptance criteria are determined for the updating the functions, see (FIG. 1, FIG. 2-4, col. 2, lines 31-67 to col. 2, lines 1-6, col. 5, lines 5-45).

With respect to claims 8 and 17, Chundi discloses that similar users comprise those users with shared organization, community or environmental characteristics, see

(FIG. 1, FIG. 2-4, col. 2, lines 31-67 to col. 2, lines 1-6, col. 5, lines 5-45, Note: same domain (same group) user shares many user attributes).

With respect to claims 9 and 18, Chundi discloses updating mechanism provides additions and modifications to a set of context attribute functions resulting in increasing ability to predict derived contexts as functions of the raw contexts, see (col. 1, lines 16-67 to col. 2, lines 1-67 to col. 3, lines 1-7).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anwar (U.S. Patent No. 6,490,577) discloses the system for search engine that utilizes both record based data and user activity data to develop, update and refine ranking protocols and to identify words and phrases that give rise to search ambiguity so that the engine can interact with the user to better respond to user queries and enhance data acquisition from databases, intranets and internets.

Sarkar (U.S. Patent No. 6,012,067) discloses the system for the retrieval, construction and manipulation of any kind of objects using Structured Query Language (SQL) over disparate relational storage systems on the web. Uniform Resource Locators (URLs) are used by the present invention to locate objects corresponding to component relational databases on the web and other web objects. URLs locating

relational schema components and other web objects are stored as attribute values in tables. Object methods and operators on such web objects are defined as part of user defined type definition for an attribute type in a table. Object request brokers apply such methods or operators on web objects anywhere on the web. Since URLs can point to relational data store under a remote schema definition, a business application logic in the form of object package is executed after constructing proper sets of records by relational operations at the remote schema location. This leads to partitioning of a logical schema into many physical schema components with business objects. Also by this invention, parts of a web object can be intelligently manipulated and access methods through index creation enable range access over web objects. Additionally, this invention suggests possible internet security by authorizations at component schema locations and by further maintaining processing logic for secured transmission over the internet. SQL queries create, retrieve and manipulate disparate web objects with implicit or explicit calls to business application logic as object methods. This invention uniquely incorporates a cooperative method of preparation, execution and resolution of a SQL query manipulating uniform resource locators and object definitions at multiple locations on the web.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

IMW
February 21, 2003


KIM VU
SUPERVISORY PATENT EXAMINER
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